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ABSTRACT

This report provides information about the performance of 1997 graduating seniors nationwide who took the American College Testing Program (ACT) Assessment as sophomores, juniors, or seniors. These students may not be representative of the total population of graduating seniors at a given school, depending on patterns of students taking the ACT. Average scores are reported for graduating seniors who completed a core high school program (typical college preparatory program) and for those who did not. The core program is defined as 4 or more years of English, 3 of more years of mathematics, 3 or more years of social studies, and 3 or more years of natural sciences. In general, those who complete a core program tend to earn higher average scores than students who do not. This association holds true without regard to ethnic group. In addition, the percentage of ACT-tested students who would be likely to receive at least a "B" in identified college courses is higher for those who completed the core curriculum. Over the last 5 years, the national average composite score for all graduates has increased from 20.7 to 21.0. African-American and Asian-American scores have remained stable while American Indian/Alaskan native scores have increased from 18.4 to 19.0. (Contains seven tables.) (SLD)

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ED 413 357

ACT Assessment

1997 *Results*

Summary Report

National

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ACT ASSESSMENT RESULTS

National
1997

This report provides information about the performance of 1997 graduating seniors nationwide who took the ACT Assessment as sophomores, juniors or seniors. As you review and interpret the information provided, please keep the following in mind:

- ACT-tested seniors may not be representative of the total population of graduating seniors.

- This report provides selected information about the nation's ACT-tested graduating seniors. For more details, please refer to the 1997 national High School Profile Report.

Average ACT Scores

National
1997

To help policy-makers gain a better perspective on the association between coursework taken in high school and performance on the ACT Assessment, this report provides information about the graduating class according to type of high school program completed. Average scores are reported for 1997 graduating seniors who reported completing a core high school program (a **core or more** program is defined as a typical college preparatory program) and for those who reported not completing a high school core program. (Refer to following page).

The academic preparation a student receives in high school correlates with success in college. ACT research indicates that students who prepare academically by taking a core high school program consistently score higher on the ACT Assessment than those who do not. These same students also earn better grades in college. These facts underscore the value of a strong basic program of study in high school.

Types of High School Program

Core or More

A **core or more** program is defined as a typical college preparatory program including:

- **English (four years or more)**

  One year credit each for English 9, English 10, English 11, English 12

- **Mathematics (three years or more)**

  One year credit each for Algebra 1, Algebra II, Geometry
  One-half year credit each for Trigonometry, Calculus (not Pre-Calculus), other Math courses beyond Algebra II, Computer Math/Computer Science

- **Social Studies (three years or more)**

  One year credit each for American History, World History, American Government
  One-half year credit each for Economics, Geography, Psychology, other History (European, State, etc.)

- **Natural Sciences (three years or more)**

  One year credit each for General/Physical/Earth Science, Biology, Chemistry, Physics

Less Than Core

A **less than core** program refers to any high school program consisting of fewer courses than those included in core or more.

Average ACT test scores in English, Mathematics, Reading, Science Reasoning, and Composite for 1997 seniors who completed a core curriculum and those who did not are shown in Tables 1 and 2. In general, students who complete core coursework tend to earn higher average scores than students who do not complete core coursework. As Table 2 indicates, this association holds true across racial-ethnic groups. Table 3 shows that regardless of ethnic background, the average Composite score for students who completed core coursework has been consistently higher over the past five years than the average Composite scores of those who did not.

Table 1
Average ACT Scores
By Type of High School Program

	Core or More					Less Than Core				
Reference Group	**E**	**M**	**R**	**SR**	**C**	**E**	**M**	**R**	**SR**	**C**
National	21.5	21.8	22.5	22.1	22.1	18.6	18.7	19.7	19.6	19.3

Table 2
Average ACT Scores
By Type of High School Program and Racial-Ethnic Group

	Core or More					Less Than Core				
National Reference Group	**E**	**M**	**R**	**SR**	**C**	**E**	**M**	**R**	**SR**	**C**
African-Amer/Black	17.4	17.8	18.0	18.0	17.9	15.1	15.8	16.0	16.5	16.0
Amer Ind/Alas. Nat.	19.5	20.0	20.9	20.7	20.4	16.6	17.1	18.1	18.3	17.6
Caucasian	22.2	22.3	23.2	22.8	22.8	19.4	19.2	20.5	20.3	20.0
Mex Amer/Chi.	18.9	20.1	20.0	20.0	19.9	16.3	17.3	17.5	17.8	17.4
Asian Amer/Pac.	21.2	24.1	22.0	22.2	22.5	18.4	21.2	19.2	19.9	19.8
P.R./Cuban/Oth.	19.2	20.3	20.2	20.1	20.1	16.4	17.4	17.4	17.9	17.4

Table 3
Trends in Average ACT Composite Scores Across Five Years
By Type of High School Program and Racial-Ethnic Group

National Reference Group	Core or More		Less Than Core	
	N	Composite	N	Composite
All Graduates				
1993	453064	22.0	374256	19.1
1994	478885	22.0	359974	19.1
1995	529146	22.0	360925	19.1
1996	542136	22.0	354733	19.2
1997	566141	22.1	361947	19.3
African-American/Black				
1993	38893	18.1	40620	16.1
1994	41533	18.0	39275	16.0
1995	48097	18.0	40099	15.9
1996	48321	17.9	38546	15.9
1997	50100	17.9	39696	16.0
American Indian/Alaskan Native				
1993	4537	20.0	5390	17.3
1994	4995	20.0	5533	17.3
1995	5398	20.1	5509	17.4
1996	5655	20.2	5419	17.7
1997	5685	20.4	5414	17.6
Caucasian				
1993	342884	22.6	275294	19.8
1994	356512	22.6	260155	19.8
1995	388508	22.6	257159	19.8
1996	398962	22.7	251375	19.9
1997	408851	22.8	250763	20.0
Mexican American/Chicano				
1993	13764	19.8	13753	17.2
1994	15411	19.6	13918	17.1
1995	13435	19.8	10801	17.2
1996	11753	19.8	9438	17.4
1997	11875	19.9	9475	17.4
Asian American/Pacific Islander				
1993	16600	22.5	7649	19.8
1994	17686	22.5	7952	19.9
1995	19237	22.4	7989	19.5
1996	19685	22.4	7676	19.7
1997	20201	22.5	7834	19.8
Puerto Rican/Cuban/Other Hispanic				
1993	7693	20.5	5799	17.6
1994	8685	20.5	5950	17.6
1995	13585	19.9	9812	17.2
1996	14838	20.0	10462	17.4
1997	15693	20.1	10615	17.4

The data in Table 4 present the relationship between average ACT Composite scores and patterns of high school coursework across racial-ethnic groups **and** annual family income levels within each group.

Table 4
Average ACT Composite Scores
By Type of High School Program, Racial-Ethnic Group
And Annual Family Income

1997	Annual Family Income					
National	**Less than $18,000**		**$18,000-$35,999**		**$36,000 or more**	
Reference Group	**N**	**Composite**	**N**	**Composite**	**N**	**Composite**
All Graduates						
Total Group	95891	18.5	221117	20.0	497371	22.0
Core	48246	19.6	124120	21.1	322899	22.9
Less than Core	46315	17.3	94944	18.6	171060	20.2
African-American/Black						
Total Group	25776	16.1	31744	16.8	24378	18.3
Core	12941	16.9	17599	17.6	14998	19.1
Less than Core	12598	15.3	13878	15.8	9208	17.0
American Indian/Alaskan Native						
Total Group	2159	17.4	3829	18.6	4463	20.1
Core	851	19.0	1858	20.0	2490	21.3
Less than Core	1185	16.5	1852	17.3	1871	18.6
Caucasian						
Total Group	43992	20.1	146236	20.9	407626	22.2
Core	21815	21.6	81964	22.0	265217	23.1
Less than Core	21837	18.7	63287	19.4	140171	20.5
Mexican American/Chicano						
Total Group	4999	17.4	7504	18.4	7402	20.1
Core	2535	18.6	4010	19.4	4504	21.0
Less than Core	2427	16.2	3444	17.2	2844	18.6
Asian American/Pacific Islander						
Total Group	4586	18.8	7330	20.4	13968	23.3
Core	2934	19.6	5006	21.2	10423	23.9
Less than Core	1559	17.3	2177	18.8	3339	21.6
Puerto Rican/Cuban/Other Hispanic						
Total Group	5954	17.2	8632	18.4	9857	20.6
Core	3048	18.2	4918	19.5	6400	21.5
Less than Core	2753	16.1	3567	17.1	3323	18.9

Each year ACT collects freshman course grades from hundreds of colleges and universities. Research has shown ACT-tested graduates typically have at least a 50 percent chance of receiving at least a "B" in the courses listed if they obtain the identified ACT score value or higher. The columns in the right side of the table present the percentages of ACT-tested graduates that earned a score at or above the typical cutoff score. For example, of those students who had core or more coursework, 76% had an ACT English score at or above 18.

Table 5
Summary of Course Placement Cutoff Scores

Course Type	ACT Assessment Test Variable	Typical Cutoff Score	Percent At or Above The Typical Cutoff Score	
			Those with Core Coursework	Those With Less than Core Coursework
English				
Standard Composition	English	18	76	55
Advanced Composition	English	21	56	34
Literature	English	21	56	34
Mathematics				
Elementary Algebra	Mathematics	19	70	41
Intermediate Algebra	Mathematics	22	49	24
College Algebra	Mathematics	23	43	19
Calculus	Mathematics	26	25	10
Science				
Chemistry	Science Reasoning	23	44	24
Physics	Science Reasoning	20	68	45

Academic success at specific colleges/universities depends on many factors, including the selectivity of the institution and the institution's grading practices. Based on the information presented above, the percentage of ACT-tested students who would likely receive at least a "B" in the identified courses is higher for those who completed the recommended core coursework. Students who earn ACT scores below those listed may need additional academic preparation to be successful in these typical college entry level courses.

Table 6 compares percentages of students choosing selected academic majors in 1993, 1995, and 1997. Overall the interest in most majors has been consistent during this period.

Table 6
Percentages Choosing Selected Majors
By Graduation Year and Gender

National Reference Group	Men	Women	Total
Business			
1993	15	14	14
1995	14	12	13
1997	14	11	12
Computer/Information Sciences			
1993	3	1	2
1995	4	1	2
1997	5	2	3
Education			
1993	5	12	9
1995	5	12	9
1997	6	13	10
Engineering			
1993	18	3	10
1995	17	3	9
1997	17	3	9
Health Professions			
1993	13	25	19
1995	13	26	20
1997	12	27	20

Table 7 presents the average ACT Composite scores for various racial-ethnic groups from 1993 to 1997. Trend information is provided for each reference group represented by 500 or more ACT-tested graduates each year. Over the five-year period, the national average composite score for all graduates has increased from 20.7 to 21.0. African-American and Asian-American scores have remained stable while American Indian/Alaskan Native scores have increased from 18.4 to 19.0.

Table 7
Trends in Average ACT Composite Scores*

National Reference Group	N	Composite
All Graduates		
1993	875603	20.7
1994	891714	20.8
1995	945369	20.8
1996	924663	20.9
1997	959301	21.0
African-American/Black		
1993	80401	17.1
1994	81806	17.0
1995	89155	17.1
1996	87630	17.0
1997	90617	17.1
American Indian/Alaskan Native		
1993	10384	18.4
1994	11026	18.5
1995	11361	18.6
1996	11580	18.8
1997	11509	19.0
Caucasian		
1993	625242	21.4
1994	623366	21.4
1995	650664	21.5
1996	654377	21.6
1997	663878	21.7

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Table 7
Trends in Average ACT Composite Scores*

National Reference Group	N	Composite
Mexican American/Chicano		
1993	27713	18.5
1994	29558	18.4
1995	24431	18.6
1996	21345	18.7
1997	21511	18.8
Asian American/Pacific Islander		
1993	24754	21.7
1994	26168	21.7
1995	27784	21.6
1996	27847	21.6
1997	28542	21.7
Puerto Rican/Cuban/Other Hispanic		
1993	13894	19.3
1994	15119	19.3
1995	24054	18.7
1996	25857	18.9
1997	26841	19.0

*All average scores are on the scale for the Enhanced ACT Assessment. Annual national trends in ACT scores beginning with 1969-70 are available on request.